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ABSTRACT

The many studies on teacher competence, usually biased toward specific viewpoints and concerned only with segments of the whole performance, demonstrate the need for a clearer definition. Methods used to determine effectiveness include measurement of pupil gains, job analysis, and pupil ratings of teachers, all subject to inherent fallacies and limitations. The California Definition, published in 1952 by the California Teachers Association, has since been officially adopted by the state and identifies six teacher roles on the basis of the group or individuals with whom the teacher works. In 1950 the American Educational Research Association appointed a seven-member committee which established two general categories, relating directly to teacher effectiveness and to observable behavior and characteristics from which effectiveness may be inferred. In 1954 the American Psychological Association listed six categories: social validity, conceptualization, stability of the function, variability among the population, measurability, and ultimate-immediate relationships. An instrument developed at the University of Hawaii, using the California Definition as a base, is described with the suggestion that similar local instruments should be devised. An annotated bibliography is provided, as well as a detailed taxonomy of teacher roles from the California Definition. (This document is related to SP 003 954, in this issue.) (MBM)

MEASURING TEACHER COMPETENCE

Research Backgrounds and Current Practice

By the Committee on IOTA[1]

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FOREWORD

Questions of effectiveness of the nation's educational endeavor, whether at the kindergarten or graduate school level, eventually focus on teacher competence. There is evident need for evaluation standards and procedures acceptable to the teaching profession and meaningful to the public because both judge teacher competence.

Adjudication of teacher competence can lead to many desirable ends. Among these are improved individual plans for inservice professional growth, improved selection and retention, and improved programs of teacher preparation. It seems important that many ends be served in the interests of improving the quality of educational services.

This publication is made available by the California Teachers Association in hope that it will be useful in developing rational and acceptable standards and procedures for adjudicating teacher competence. It should prove useful to any group seriously undertaking to develop such standards and procedures. The definition of teacher competence utilized in this publication[1] has been recognized by the Association as a useful starting place in the development of local definitions of teacher competence. The belief is held that the point of view and arguments set forth herein deserve widespread study. However, this publication is not a policy statement of the Association and official endorsement is not implied.

J. Alden Vanderpool
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[1] California Teachers Association. *Six Areas of Teacher Competence,* 1963, pp. 18-26. (Revised edition of California Teachers Association, *Teacher Competence: Its Nature and Scope,* 1957.)

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Need For A Common Criterion

Anyone proposing to undertake a project in teacher appraisal must realize that no other aspect of education has been explored with greater energy and persistence than teacher competence. It has been subjected to study by groups and individuals, both lay and professional, by mature researchers and by novices qualifying for professional degrees. Studies and discussions have been directed to its identification, definition, and measurement, as well as to finding means for its development.

The first formal studies in this field were instituted before the turn of the century. The number reported annually mounted to a peak of about sixty in 1930, and since has stabilized at about forty. Current developments, however, have created a resurgence of interest in the measurement of teacher competence. The obvious importance of education to national survival has aroused a concern for the quality of our schools which ultimately focuses attention on the question of teacher efficiency. The school administrator is accountable for reliable evidence that the school is staffed with competent teachers. The same concern for high quality in public education raises the question of high quality in programs for teacher preparation. The institutions are actively engaged in experimental activities to discover more efficient programs. Validation of program efficiency calls for evidence that more competent teachers are being produced.

With this revival of interest, a reasonable estimate of the number of published researches on teacher competence approaches two thousand. It is unfortunate that the results from sixty years of research have not been commensurate with the expenditure of time and effort. They have, in fact, been conflicting and inconclusive to a degree that has led many otherwise rational members of the profession to a defeatist inference that teacher competence cannot be measured. It is difficult to reconcile this verdict with the fact that many major functions in education depend on the assumption that teacher competence is both variable and measurable.

When the results of a series of studies are negative, two alternative judgments are possible. The purposes of research may be impossible of attainment, or the methodology for research needs revision. While it is improper to challenge the findings of research on the basis that they upset cherished belief, it is equally inappropriate to accept them without critical scrutiny of their assumptions and procedures. Further research in this area

should profit from previous experience. What causes can be assigned to inconclusive results? What has worked, and what has not? What is worth more extensive trial? Where do we go from here? And, incidentally, where is here?

A general overview of what has been done and what is being done suggests two major areas of weakness. We do not know how to define teacher competence or how to identify it. Doubtlessly the two difficulties are related. It is worth while to examine them separately.

A Diversity of Definitions

Before a function can be measured it must be defined. Even a superficial review of the research in teacher competence reveals lack of understanding and uniformity with respect to the function to be measured. A typical oversimplification of the concept, and a failure to study and define it, are adequate in themselves to explain the inconclusive results without further complications from the research procedures.

The tendency to oversimplification is readily explained. Everyone has contacts with the schools—as a pupil, a parent, or an interested citizen. This familiarity breeds confidence in ability to appraise teacher effectiveness. While one might hesitate to assume the role of a medical expert on the basis of experiences in the doctor's office or hospital, almost everyone feels qualified to pass dogmatic judgments based on his experiences in the classroom.

This oversimplification bred of familiarity is further confused by the widely different points of view from which the work of the teacher is appraised. In the performance of the necessary professional activities the teacher works with several different groups—adult and juvenile, lay and professional, in class and out of class. The activities carried on with each group call for a distinct area of competence and the teacher role as conceived by each group centers in that area. It is to be expected then, that any study of teacher competence that reflects the concerns of any one group will be preoccupied with a narrow concept of efficiency. It is worth while examining the point of view of each of several groups, to see the nature and origin of its bias and the steps needed to correct whatever bias exists.

The pupils.—The group with whom the teacher is most closely associated, and the one most concerned with teacher effectiveness, is the pupils. While not so articulate as other groups (until they have ceased to be pupils) their judgments have been placed on record by various investigators. The value of these judgments depends on the care with which the investigator recognizes the context in which they are made. For each pupil, the effective teacher is one who helps him to achieve his goals, whether personal or educational, or both. The pupil is judging the teacher in relationship to his own personality needs, growing out of a specific problem situation, usually in the classroom. The generalizations possible from his testimony are accordingly limited to the area of teacher-pupil relationships.

The public.—The American people have always been concerned with the quality of the schools. In recent years the crucial relationship of education to national survival has been brought forcibly to their attention. An increasing awareness of the contributions education must make to society is evident in the statements of lay organizations such as the PTA. With respect to teacher competence, however, there is a curious ambivalence. In various formal and informal statements on "What is a good teacher?" one looks in vain for recognition of the broad responsibilities of the teacher who can set in motion the modern functions of education.

This ambivalence is due in part to the dual nature of the experiences of the public with the schools. As citizens, they have a more or less adult viewpoint of the relationship of the schools to society. On the other hand, the public consists of individuals, all of whom have been pupils, and many of whom are parents. Each can recall the image of the competent teacher which was created during his experiences in the classroom. It is likely to reflect the teacher who contributed most effectively to the solution of the personal problems he encountered as a pupil. In its details it will include many personal traits that are vaguely defined and frequently irrelevant. Overall, it is influenced less by effectiveness in performing the broader functions of education than with pupil-teacher relationships in the classroom.

The administrator.—The administrator has a two-fold responsibility. In the first place he is responsible for the quality of the local school program. His criteria for appraisal quite properly reflect this responsibility. His policies for retention, promotion, salary increments, and inservice improvement depend on reliable information about the effectiveness of the individual teacher in the local situation.

Appraisal by the administrator, however, should serve not only the purposes of the local program, but of the profession in general. It should guide the public toward a broad and functional concept of teacher efficiency; it should orient the professional growth of the teacher; and it should provide the preparing institutions with information they need on the effectiveness of their programs. Beyond this, it should contribute to the professional fund of information on teacher competence.

These broader purposes cannot be carried out when the teacher's job is loosely defined. In that case the appraisal is likely to be based largely on negative factors and local pressures that are more or less irrelevant to the quality of teacher performance: on complaints or commendations of parents and pupils, and the extent to which the teacher fits without friction into the life and activities of the school organization.

Evidence that such a narrow and localized concept of teacher efficiency frequently occurs is found in surveys of rating scales and appointment blanks in common use. No uniformity is revealed in what is supposed to be measured. The most frequently mentioned items are disciplinary ability, teaching ability, scholarship, and personality. There is no agreement as to what is meant by any one of these terms, however, and little guidance for

the observer. Odenweller found that personality and teaching ability were, in effect, synonymous in administrative ratings.

The institutions for teacher preparation.—The preparing institutions have a varied concern in the measurement of teacher competence. They need to understand the factors contributing to it in order to add to the fund of systematic knowledge about it and to design programs to facilitate its development. They need to predict the probable success of individual graduates. They need to establish the effectiveness of their programs by measuring the quality of their products. In recent years experimentation directed to the search for increasingly effective programs has brought about the necessity for comparison of regular and experimental programs. The effectiveness of any program can be measured only by determining the quality of its product.

The institutional appraisal is in terms of general teacher effectiveness. The factors taken into account must be universally related to success, regardless of locality. While individual differences among graduates should be taken into account in the placement program, the institutional responsibility is for development of professional competence. The criterion of teacher effectiveness, accordingly, should be sufficiently broad to embrace the class of jobs that are common responsibilities for all teachers. These, in turn, are those that are essential to the achievement of the purposes of education in our society.

It is notable that although the professional institutions in education have given close attention to the general purposes of education they have shown less concern for the identification of the competences required by the teacher in order that these purposes be achieved.

Professional groups.—The teacher also has important contacts with groups of fellow-professionals (informal or formal groups) engaged in activities contributing to the general efficiency of the educational program. It is true that no group appears to be unduly sensitive to the teacher's need for efficiency in this area of activity. The need must be noted, however, as evidences of inadequacy in the popular concept of teacher competence.

From the standpoint of the teacher's professional status and growth, the present confusion as to the expectations of various groups is wholly unsatisfactory. Unless teacher competence is defined with sufficient breadth and objectivity to orient his professional growth, it may well constitute a threat to the teacher's professional status. Naturally each teacher expects that his efficiency will be appraised on the basis of his contributions to the local system and to the community. Unless his entire career is to be spent in the same locality, however, he is aware that his professional growth should be oriented toward the general class of competences required of all teachers if the functions of education in our society are to be served.

This threat to professional status has stimulated teachers to action. Even apart from their selfish concerns, definition of teacher competence is

one of their professional responsibilities. This obligation has been accepted and various projects, undertaken alone or jointly with other groups, have been reported by task forces of the teaching profession.

Need for a Common Language

From this examination by various groups two general types of oversimplification emerge. In the first place, each group tends to be concerned with only a fraction of the total spectrum of teacher competence. Secondly, there is likely to be an overemphasis on local and specialized needs to the exclusion of general purposes of education. While the definition of teacher competence as conceived by any one group is limited, the various definitions are not necessarily inconsistent or incompatible. When broadly viewed, and avoiding any "either/or" implications, they tend to supplement each other in an unsystematic way. The source of confusion lies in the fact that **teacher competence** means different things to different people.

To arrive at a common understanding and to avoid confusion it will be necessary for each group to view its concept as an adaptation from a comprehensive definition of the teacher's role in the educational program. Inconsistencies in research findings are due largely to a failure to see the need for this definition. Each group needs to comprehend the broad range of teacher competences of which its own contacts reveal but a fraction. Only from this point of view can the various groups begin to speak the same language.

II
Definitions Implicit In Research Procedures

The methods used to determine teacher effectiveness display a refreshing variety in procedures for gathering data, in the kinds of data gathered, and in the populations who provide the data. When it is realized that each method has a different implication as to the meaning of teacher competence the problem of appraisal becomes further complicated. Researchers in the field have usually bypassed the question of definition, either assuming that the nature of teacher competence is a matter of common knowledge, or leaving it to be inferred from the kind and source of evidence produced. Some of the more widely used methods of collecting evidence on teacher competence are worth examining from this point of view.

No criticisms of the methods as such are intended in this analysis. The limitations to be pointed out are those that are widely recognized by the researchers using the procedures. The confusions that arise are created by those who use the results uncritically, without recognizing the limitations or the specific values of the data.

Measurement of pupil gains.—The purpose of education is to bring about desired changes in pupil behavior. The possibility of a direct measurement of teacher effectiveness by determining the extent to which such changes are achieved has attracted a number of researchers.

A variety of methods of measuring pupil gains has been necessitated by the difficulties that intrude upon this apparently simple problem. Among these methods are achievement quotients, raw gains, and residual gains. Earlier researchers used raw gains by groups matched on the basis of initial status and intellectual ability. More recently further controls were found desirable. One procedure that has become common is to utilize some form of residual gain by equating other factors that potentially influence results. Here the progress expected is estimated by means of a regression equation and the differences between expected and actual gains are found through analysis of covariance. Other procedures include contour analysis, linear and non-linear response surfaces, and a comparison of regression coefficients within various classrooms.

No amount of statistical refinement can improve the validity of the original data. In spite of the extended study that has been given to methodology in this area of research, the results have not lived up to original expectations except in situations where the desired outcomes can be limited

to narrow subject-matter achievement in specialized schools. An examination of the assumptions on which the procedures are based suggests some of the reasons for the limitations that are recognized by those working in this area:

1. **That the desired pupil changes can be objectively defined and adequately measured.** The desired changes include several types of outcomes. Where only skills and information are involved no serious problem is apparent. Understandings, interests, attitudes, ideals, and appreciations, while equally important, are more difficult to assess.

2. **That the desired changes represent the ultimate goals of education.** These latter are ordinarily defined in such terms as worthy home and community membership, vocational efficiency, and self-realization, none of which is identifiable except in the mature citizen. To what extent any of the immediate products of the classroom will contribute to these ultimate goals remains to be established. Until this is known, the criterion of pupil gains must be classified as instrumental rather than as ultimate.

3. **That measured pupil changes can be wholly attributed to the classroom teacher.** Two reservations may be noted here. In the first place, the school community to which all teachers and pupils make a contribution certainly brings about changes in behavior that may be desirable or undesirable. In the second place, the facility with which a pupil learns a given subject depends on how he learned the prerequisite foundations in earlier grades. If fourth grade arithmetic is learned mechanically rather than meaningfully, it will be more difficult for the pupil to master fifth grade arithmetic. In other words, the phenomenon of transfer of training will enter into all measured changes in varying and uncertain degrees.

4. **That bringing about specified changes in pupil behavior represents the sole criterion of teacher effectiveness.** Classroom activities represent only one area of the teacher responsibility. Also to be taken into account are his activities as a member of the school staff—curriculum-building, extra-class responsibilities, etc.—liaison with the home and community, and professional activities leading to professional growth, individually or with professional organizations. All of these are important to the program of eduation. Unless the out-of-class responsibilities are taken into account, the measurement of teacher efficiency is incomplete.

Thus it is evident that even if desired pupil changes are adequately measured there would still be serious questions about how well the teacher performed his out-of-class responsibilities, that fraction of the gains which can properly be attributed to the the classroom teacher, and how to weigh the immediate-ultimate relationships to educational goals.

The job analysis.—Research on teacher competence did not escape the attention of job-analysis enthusiasts of the twenties. It was assumed that if

we could find out what good teachers did, all teachers could become good teachers by adopting those techniques. Several fallacies, more or less clearly recognized, limited the popularity of this form of research:

1. **How are good teachers to be identified as a preliminary to the analysis?** The activities to be recorded are those of good teachers, as distinct from mediocre. If this is possible at the outset, the problem of measuring teacher competence is already solved.

2. **Is the effectiveness of a teacher determined by his activities considered independently of purposes or situational factors?** Professional behavior is essentially adaptive. The ends-means relationship is the clue to effectiveness. The success with which a teacher adjusts his procedures and selects classroom activities appropriately to the variables in the situation is the key factor in determining his professional competence. It is the effectiveness of the adaptation, rather than the activities viewed independently, that is the identifying characteristic of competence. In actual practice, research has uncovered no single, specific teacher act that has significant correlation with student achievement.

The inadequacy of the job analysis for purposes of analyzing or appraising professional behavior is now generally recognized. No important research utilizing this technique has been reported in a long time. The same fundamental fallacies creep in, however, whenever the research design permits teacher behavior or personality to be judged independently of ends to be served. This is inevitably the case, for example, when observations are made by any but a competently trained member of the profession. It is important, for this reason, to call attention to this fundamental fallacy.

Pupil ratings.—The use of pupil ratings of teachers has received, and continues to receive, much attention from researchers with mixed reactions. There is a general opinion supported by little evidence that, when properly used, students' ratings can contribute to self-improvement of instructors. On the other hand, there are those who contend that reports of pupils on their own reactions are less useful than reports by trained observers.

When used in programs of teacher appraisal, pupil ratings tend to show little correlation with other measures. This is to be expected since pupils are judging from within a different frame of reference. Yet, when used alone, pupil ratings are still considered by some investigators as the best indicator of teacher effectiveness. Rating scales have been developed on the basis of criteria used by pupils in forming their judgments. If this point of view is defensible, it must be defended on the basis of the following assumptions:

1. That what the pupil observes represents a comprehensive sampling of teacher responsibilities.

2. That pupils are capable of comprehending the important goals to be achieved in the classroom and the effectiveness of various activities in achieving these goals.

3. That pupils can identify teacher behavior that is indicative of ability to adjust to these goals.

Without questioning the value of pupil ratings when properly used, the dubious nature of these assumptions and the limitations implied for pupil appraisals of teacher effectiveness are apparent. Research supports these doubts. Considerable halo effect is noted when pupils rate their instructors on several traits. Whether grades received by the students have affected their ratings depends on a variety of variables in the situation. If the instructor gave special attention to the brighter students he was rated highly by them, and the opposite was also true. Research has not yet been adequate to generalize on the influence of various other factors such as age, sex, and intelligence.

Since it must be assumed that pupils are not inclined, or prepared, to judge the merits of teacher activities in the light of educational goals, their judgments cannot reflect the effectiveness with which the teacher has adapted his procedures to the requirements of the situation. Teacher behavior and personality tend to be judged as such, independently of the ends to be served. In this sense pupil ratings incorporate the fallacies of the job analysis.

The effects of the immature and professionally unsophisticated viewpoint of the pupil are evident in the scales growing out of pupil judgments. These are limited largely to what is observable in the classroom and place heavy emphasis on pupil-teacher relationships rather than on instructional expertness. A further characteristic of pupil judgments and instruments derived from them is the attention given to personality traits in the teacher. No causal relationship has been established either experimentally or logically between a given personality trait and teacher effectiveness. Current thinking tends toward the point of view that teachers with many diverse personalities may be effective in different situations, or may effectively meet the same situation in different ways.

Systematic observational techniques.—Considerable attention has been directed to improved techniques for identifying significant teacher behavior through observation by supervisors and administrators. The major variants among these techniques are:

The forced choice in which the observer checks the most nearly descriptive of each of a series of statements without necessarily knowing whether it is favorable or unfavorable. This appears to provide the most reliable and discriminative technique with least halo effect.

The graphic rating scale on which the observer indicates by checking on a scale the degree to which the teacher evidences the characteristic in question. It is most effectively used in conjunction with the forced choice procedure.

Free observation with memoranda and anecdotal records. Here is evidenced the least tendency to impose a definition and philosophy but it is difficult to categorize and evaluate the results of this procedure for purposes of statistical analysis.

Two important generalizations appear to be justifiable from experiences with observational procedures:

1. Factors that are most objectively observable are rated most consistently, with least halo effect. Ratings on personality traits are least consistently rated, with greatest halo effect.

2. In any observational procedure it is important to have highly trained professional observers in order to obtain reliable, valid, and discriminative results.

Summary

Progress in appraisal of teacher competence depends on the ability to build on past experience, avoiding mistakes of the past and profiting from success. A few major conclusions are justifiable:

1. The criterion required for measurement of teacher competence, and to provide a uniform frame of reference for those engaged in education, is a definition of the teacher's role in the educational program.

2. The definition should be sufficiently broad to embrace the purposes of education in our society.

3. The relationship of each **immediate** factor in the definition, consisting of observable facts and behavior, to the **ultimate** criterion of teacher effectiveness should be clearly established. The relationship may be logically inherent in the relationship between the factor and the goals of education, or it may be established through experimental evidence.

4. Whenever a researcher selects or devises a procedure for collecting evidence on teacher competence he is redefining the function to be measured and introducing his own personal philosophy into the situation. It is his obligation to specify the assumptions implied in his techniques and the relationships between his area of research and the total range of teacher competence.

5. Any procedure for collecting evidence is ineffective unless it is carried out by trained professional observers.

III
Establishing a Criterion

Research in the field of teacher competence must be designed to take into account two distinct, closely related questions:

a. What is teacher competence?

b. What factors are related to teacher competence?

These are two distinct questions, differing in nature. The first question calls for a definition which must be supplied before the second can be dealt with. It is not a question subject to experimental research since it calls for a value judgment. Furthermore, the variable in the second question, teacher competence, must be defined before it can be measured or before its relationship to other variables can be determined. The failure to differentiate between these two questions has been a fertile source of confusion and wasted effort. The inadequacy and inconsistency notable in the results from research in this area are examples. Each of the various groups with whom the teacher works tends to focus its attention on a fraction of the total range of teacher competence. Only when the whole range is clearly defined can each group see its concerns in the proper perspective. Only then can effective communication be established.

What is a good definition?—A definition of teacher competence adequate to serve as a common frame of reference and as a criterion for measurement cannot be developed merely by summating the concerns of all interested groups. It should take into account all professional responsibilities of the teacher in our society and there is no assurance that some major area of responsibility might not have escaped the attention of all groups. It should also be selective, providing assurance that some groups may not expect services that are inappropriate.

Students of societal organization are becoming increasingly aware that within the social structure various groups—notably the professions—are characterized by the critical importance of their services to society. The group is organized, and its membership trained, to make these services fully effective. Its status within the structure of society is determined by the quality of the services it renders.

The role of each group within the social structure is defined in terms of these services. A clear definition of its role is essential to efficiency of

service and to avoid misunderstanding with the public. Obviously, the true role—that is, the role that **should** be filled—cannot be determined by a survey of practices or a canvass of public expectations. While useful as a beginning, such expectations and practices are limited in scope by tradition and by the narrowness of individual experience. Professional judgment is required to determine what services are needed by society and can be made available by the profession.

It is clear that what is required in education as a criterion for measurement of teacher competence is a definition of the teacher's role in our society.

The California Definition.—The need for an adequate definition of teacher competence was recognized by the California Council on Teacher Education immediately after it was organized in 1945. Since the major purpose of the Council is to develop improved programs for teacher preparation, an objective definition of the desired product was essential for their validation. A coordinating committee was appointed to plan and direct this project. Since it required the determination of the services the schools should provide and the development of the abilities required by the teacher in order that they be made available, the definition called for the cooperative effort of all professional groups and many interested lay groups and individuals interested in effective teaching.

The California Definition, as it is commonly termed, was first published in 1952 and was adopted in 1955 by the California Teachers Association as the official definition of teacher competence. It has since demonstrated its practical value in serving as the basis for program building and validation, in testing the effectiveness of processes for selection of candidates by preparing institutions, and as the criterion for developing instruments for teacher appraisal. It has been subjected to a variety of studies to determine its adequacy as a definition of the teacher's role in society.

Actually, the California Definition identifies six teacher roles on the basis of the groups or individuals with whom the teacher is working. The descriptions of the six teacher roles are intended to outline the major functions and, in a general way, the areas of teacher competence that typify each role. A more detailed analysis is given in the Appendix.

Teacher Roles in Promoting Pupil Growth[1]

1. **Director of Learning.**—The need for expertness in guiding learning activities in the classroom and other group situations is widely recognized. Some of these activities are designed to provide for important achievements

[1] Reproduced by permission of California Teachers Association from *Teacher Competence: Its Nature and Scope*, 1957, pp. 12-21. (This publication is no longer in print. The current version is entitled *Six Areas of Teacher Competence*, Commission on Teacher Education, California Teachers Association, 1964. The definition itself remains as set forth in the 1957 version.)

required of all pupils, such as skill in the fundamental processes, while others may be designed specifically to develop competence in democratic processes. All of them call for competence in group leadership, based on:

a. A clear understanding of how pupils learn, as demonstrated by ability to plan and direct learning activities that incorporate effective motivation and opportunity for critical thinking and generalization.

b. An understanding of the individual pupil as demonstrated by ability to meet individual needs and develop individual talents in a group situation.

c. Ability to appraise the effectiveness of group activities in achieving desired outcomes.

2. **Counselor and Guidance Worker.**—Many, and probably most, of the needs and problems of the pupil can be provided for in group situations. From time to time, however, cases arise where academic and personal problems call for individual counseling and guidance by the teacher. While unusual problems call for specialized services, the individual problems of the pupil and the individual expression of them, are primarily the responsibility of the teacher.

Two major functions, which differ more in purpose than in the activities they call for, are to be served in this role. On the one hand there is the responsibility to society to provide healthy and emotionally mature individuals prepared to fill all the important and social roles. On the other hand is the responsibility to help the pupil to become fully effective as an individual. Both of these responsibilities call for teachers who can deal effectively with the pupil in individual relationships.

Teacher competence in this role, accordingly, is based on:

a. Ability to establish effective relationships with the individual pupil.

b. Ability to collect pertinent counseling information about the pupil.

c. Use of suitable counseling techniques to guide the pupil in understanding himself and arriving at a solution of his own problems.

d. Information about the society the pupil will enter and the opportunities it affords for service as demonstrated by helping the pupil to match his own capacities and interests with the requirements and opportunities in various fields of endeavor.

e. Effective relationships with the home.

f. Recognition of the need, when it arrives, to call on specialized services for serious problem cases.

Liaison Roles of the Teacher

3. **Mediator of the Culture.**—To see that the future member of society acquires his cultural heritage is a major responsibility of the teacher as mediator of the culture. The effective member of society is informed about its nature and problems, accepts its behavioral controls, and also shares in the

contributions of the fields of learning. Social values and behavioral controls vary from one culture to another and in the same culture from time to time. It is for this reason that the definition of teaching competence depends so largely on value judgments and differs so sharply among cultures.

It is this relationship to the culture, also, that differentiates this role from Role 1, the Director of Learning. At first glance it may seem artificial to consider as a separate area of competence the ability to direct learning (Role 1) and knowing what is to be learned (Role 3). Yet experience shows that a teacher with scholarship in one field—mathematics, for example—may be ineffective if assigned to teach outside his field—as in literature. On the other hand, a scholar may be an ineffective teacher unless he understands the learning process and the principles of human development. It is to emphasize the fact that both areas of competence are necessary to teaching effectiveness that, for purposes of this definition, they are placed in separate roles.

This necessity for scholarship calls attention to the interesting fact that we think of different kinds of teachers according to what they teach, although this is only one relatively minor differentiation among teachers in all six roles. Even in his role as Mediator of the Culture it is not sufficient that the teacher is a scholar in his chosen field. He must also exemplify the attitudes and ideals valued by the culture. What is worth learning depends primarily on the society served by the school.

In our society, for example, problem-solving abilities and the techniques for effective participation in the solution of social problems are qualities desired in each member. The worth and responsibility of the individual are stressed as social values. Classroom and school activities must reflect these values. The teacher who is an effective Mediator of the Culture will:

a. Define his objectives so as to include the values that are important in the culture.

b. Utilize his field of specialization to develop problem-solving effectiveness.

c. Design pupil activities to develop ability and motivation for solving social problems.

d. Develop the appreciations, attitudes, and abilities required for effective participation in a democratic society.

e. Draw on a scholarly background to enrich the cultural growth of his pupils.

4. **Link with the Community.**—The teacher is the link between the organized society and its future member. The effectiveness of the school is measured, in the last analysis, by the success with which today's children can meet the responsibilities of membership in tomorrow's adult society. This role, accordingly, includes liaison functions which are necessary for two purposes: to work cooperatively with the public in developing and interpreting an effective program of education and to provide for a systematic

induction of youth into increasingly important community activities. Competence in this role will be demonstrated by:

a. Ability to participate with the public in planning the goals of education and in interpreting the school program.

b. Finding opportunities for educationally valuable pupil services to the community and utilizing the resources of the community to develop significant applications of subject-matter.

c. Exercising leadership in community affairs with the purpose of making the community a better place in which young people may grow up.

Program-Building Roles

Each teacher has a dual responsibility for program building. Effective operation and continued improvement within the local system are a part of his specific duties. Beyond this, however, each is a member of the profession that is obligated to develop a program of education that will adequately meet our social needs.

5. **Member of the School Staff.**—Program building within the local system is directed toward three important educational functions: to provide an articulated series of learning experiences leading to desired objectives; to provide an effective environment for developing the skills and attitudes needed for effective citizenship and for meeting developmental needs; and to provide for joint planning with the public on purposes and programs in education. The classroom is articulated with the all-school unit in each of these functions.

Competence of the staff is revealed in several areas essential to efficiency in these functions:

a. A continuing study of over-all purposes and objectives of the school, jointly with the public, and the articulation of classroom objectives to those accepted for the school as a whole.

b. Planning of curricular and co-curricular activities, with those for each classroom articulated into an effective over-all sequence.

c. Sharing the administrative responsibility for effective operation of the all-school program.

d. Sharing in the evaluation of all-school objectives.

6. **Member of the Profession.**—Effectiveness as a member of the profession (not to be confused with membership in the voluntary organizations of the profession, which is only one aspect) calls for competence in three general areas of professional behavior: personal relationships, professional growth, and effectiveness in dealing with the general problems of the profession.

a. Personal relationships (with his pupils, colleagues, and the public). In these relationships the member of any profession is expected to reveal

professional attitudes by conforming to the established codes of professional ethics and recognizing the priority of societal interests. In education this is indicated, for example, by willingness to render appropriate services beyond those he is committed to, contributing to the prestige of the profession by exemplifying the scholarship and ideals valued by society, and by taking part in developing and enforcing a functional code of ethics.

b. Continued professional growth. It is not to be expected that the procedures acquired in the pre-service program will be adequate for a lifetime of service. Needs created by social change cannot be entirely anticipated and progress in the foundational sciences constantly opens the way to more effective procedures. The well prepared teacher is one who can develop more effective practices to meet new and more important requirements. Such professional growth is revealed by such activities as these: developing and testing more effective procedures individually in the course of his classroom activity or in collaboration with specialized professional groups; keeping informed on current trends, tendencies, and practices through the professional literature or attendance at professional meetings; and, in many cases, contributing to the professional literature.

c. Effectiveness in contributing to the definition and achievement of the goals of the profession. Probably the unique character of a profession is that its members must take individual responsibilities for achievement of professional goals over and above their duties in the local system. These impose an array of important tasks: to improve the quality of membership, through improved programs of preparation, accreditation of programs, certification requirements, and recruitment of desirable personnel; to improve the economic and social welfare of the membership; to define and enforce professional standards; to accumulate a body of professional procedures tested and proved to be effective; and to secure adequate physical facilities and financial support for the program.

Some of these tasks are directed by leaders with special preparation while others are assumed by professional organizations, lay-professional groups, or professional schools. All of them represent a collective responsibility for the profession as a whole. They call for coordination, self-direction, and effectiveness which are possible only if the individual members understand the significance of professional status and the obligations it imposes.

Individual obligations for a given problem vary from moral and financial support to active leadership, depending in some part at least on the teacher's interests and opportunities for participation. Effective contribution would be demonstrated by one or more activities such as the following:

a. As an individual. Interpreting to his colleagues and the public, in discussions and publications, the issues and significance of major problems in his field of interest and participating in workshops and conferences dealing with professional problems.

b. Through professional organizations. Acting as a contributing member in organizations and committees actively engaged in the problem areas;

participating effectively in the work of the over-all professional organizations at the local, state, and national level; and interpreting the work of these organizations to his colleagues and the public.

How Much Competence Is Expected

It is not to be expected, of course, that even the experienced teacher can achieve maximum expertness in all roles. Rather, a floor of minimum competence may be expected for each role, with a high level of competence in those where the teacher has special aptitudes and interests. Within any given school organization there must be sufficient competence in each role so that each function of the school may be carried out.

In addition, each school function offers opportunity for specialized leadership. As examples of trained leaders who are expected to provide direction and coordination in each role, we note:

1. Director of Learning
   - supervisors
   - college teacher educators
2. Counselor and Guidance Worker
   - counselors
   - personnel workers
   - college specialists
3. Mediator of the Culture
   - college academic staff
   - educational sociologists
4. Liaison with the Community
   - superintendents
   - administrative staff in public relations
   - county and state officers
5. Member of the School Community
   - principals
   - department heads
   - co-curricular directors
6. Member of the Profession
   - local, state, and national leaders in professional organizations

We are, however, concerned here primarily with **teacher** competence. Competences of specialized personnel require further exploration and definition.

A question needing an early answer is frequently raised: What level of competence in each role should be provided in the pre-service program of preparation? In the time now available, only a safety-minimum is possible. Possibly this should be related to inservice programs of continued preparation. Any such dividing line must be established through empirical research.

Requirements for a Useful Definition

In February, 1950, the American Educational Research Association appointed a seven-member committee on Criteria of Teacher Effectiveness to investigate the requirements such criteria should meet. The Committee in its two Reports[1] emphasized that a conceptual definition of the effective teacher was prerequisite to a systematic development of operational definitions and the study of techniques for collecting evidence. They recognized that the possible criteria of effectiveness must fall into two general categories:

Ultimate, relating directly to teacher effectiveness, and

Proximate, relating to observable behavior and characteristics from which effectiveness may be inferred. The latter are valid only to the extent that they are related to the former.

In 1954 a committee of the American Psychological Association reported on a study of the same general question.[2] Their recommendations agreed with those of the committee of AERA listed above and included other requirements more specific and detailed. As they relate to teacher competence, they may be summarized and interpreted under these headings:

Social validity	Variability among the population
Conceptualization	Measurability
Stability of the function	Ultimate-immediate relationships

The nature of each of these requirements may be clarified by illustrating each as it applies to the California Definition:

1. **Social validity.**—The product defined is to be justified as socially necessary in terms of **what should be.** The development of the California Definition anticipated this requirement. Under the continuing leadership of the California Council on Teacher Education all segments of the profession in California participated in developing the concept of the effective teacher. The attributes that had been intuitively recognized were validated in terms of the goals of education in our society since these goals of education are achieved largely through the teachers in the schools.

2. **Conceptualization.**—A definition, to be useful, must present an integral portrayal of the desired product. The conceptualization must meet this requirement in order to serve as the basis for curriculum construction as well as for the derivation of measuring instruments. The California Defini-

[1] H. H. Remmers, and Others, "Report of the Committee on the Criteria of Teacher Effectiveness," *Review of Educational Research,* 22: 238-63; June 1952.

H. H. Remmers, and Others, "Second Report of the Committee on Criteria of Teacher Effectiveness," *Journal of Educational Research,* 46: 641-58; May 1953.

[2] American Psychological Association, *Technical Recommendations for Tests and Diagnostic Techniques;* 1954.

tion conceptualizes the effective teacher in the preceding description of each of six teacher roles.

The instruments used for evaluation should measure a sampling of the abilities called for or implied in the conceptualization. It is not acceptable, therefore, to confuse the instrument with the criterion by defining the competent teacher in terms of scores on a test or rating scale. Neither is a definition acceptable if it is not comprehensive in covering all essential areas of competence or if it is not selective in excluding requirements not known to be essential.

3. **Stability of the function.**—It would be futile to undertake the measurement of any function that varies unpredictably from time to time. It is generally assumed that the competence of a given teacher remains constant over a reasonable period. The results of the measurements to be referred to in a later section confirmed this belief.

4. **Variability among the population.**—No one seriously questions the assumption that teachers vary in ability, however it may be defined. This assumption is basic to the idea of providing programs for teacher preparation, selection of teachers, and in encouraging teachers to avail themselves of opportunities for inservice education. Experimental projects for improvement of programs of preparation are based on concern about this variability and all attempts to measure teacher competence produce evidence that it exists.

5. **Ultimate-immediate relationships.**—The essential idea here was emphasized both by the committee of the AERA and the committee of the APA. The relationship of each immediate factor in the definition, consisting of observable facts or behavior, to the ultimate concept of teacher effectiveness should be clearly established, either logically or through experimental evidence. In the California Definition this relationship is maintained by relating each requirement to the goals of education.

In particular, the personality traits that are essential to teacher competence need to be determined experimentally. Less attention than formerly is now devoted to the study of personality traits of the teacher. There is no evidence that there is one best composite of personality traits. Any definition that includes them must assume the burden of establishing the validity of the requirement.

6. **Measurability.**—The function should be defined in measurable or observable terms. For this reason teacher competence is to be defined, as in the California Definition, as the kinds of behavior suitable to achieve the goals of education and toward the development of which the program of preparation is designed. This behavioral definition will be found in the Appendix.

The six requirements outlined above are useful guides in assessing the value of any definition of teacher competence. The California Definition

was used for illustrative purposes. Whatever definition is accepted must be defended on the basis of each of the requirements.

On the other hand it is equally clear that any generally applicable definition, to be adequate for any given institution or school system, must be adjusted to the local needs, philosophy, and goals. This, however, is not to say that modifications are subject to the whims and caprices of the staff. The structure of the criterion as it is finally set up must be subjected to the same rigorous analysis as any other part of the experimental design.

IV
Instruments Used In Measurement

The criterion is the frame of reference from which instruments and procedures for measurement are designed. The committee of the American Psychological Association dealt with this important relationship. While the committee was concerned with devices for collecting various kinds of data, reference here will be to instruments for directing observations of teachers.

Requirements for Instruments

The **validity** of the instrument is measured by the extent to which it samples the areas of competence defined in the criterion. The extent is to be appraised both selectively and comprehensively. On the one hand, all the data collected through use of the instrument should be relevant to what is called for in the criterion. On the other hand, it is unlikely that any one instrument or procedure will be adequate to measure in detail the broad scope of teacher competence. Devising of instruments, therefore, calls for a selection of what is most important, either because it is essential socially or because there is suspicion of inadequacy of achievement. Selection should be explicit and considered, rather than a matter of negligence and oversight. Measurement should be deferred, rather than omitted.

The suitability of an instrument for local use depends on its local as well as its general validity. To impose a philosophy on any local institution is not only inappropriate but impractical. The goals of each institution are unique and its criterion must be adapted accordingly. The instrument should be developed from this adaptation.

This requirement rules out the too common practice of waiting until experimentation with programs of preparation is fairly complete and then using some widely publicized instrument to measure the quality of teachers produced by the experimental program. When we realize that uniqueness in objectives and philosophy extends to the local school systems as well as to the preparing institutions the possibility of constructing instruments of universal validity becomes remote.

An instrument to be used for appraising quality of teaching, and, in comparison, of groups of teachers, must reveal the statistical qualities required in effective instruments for measurement. These include consistency, discriminative ability, and freedom from personal bias.

Developing an Instrument

Since a universally valid instrument is out of the question, it appears that much of the research in this area has been directed to a dead end. The alternative is to develop a procedure for local development of useful instruments. The procedure must be simple and practical and the instruments produced must meet the requirements set forth above. There is, fortunately, some experience indicating that it is practical for local staff to construct and administer instruments whose quality was adequate for experimental purposes. The construction of the instrument will be outlined with special reference to these requirements.

As part of the evaluation of an experimental program at the University of Hawaii during the years 1957-59, it was necessary to compare the quality of teachers prepared in an experimental program with graduates of the regular program. Since the instruments currently available provided no useful data when tried out, it was necessary to develop new procedures and instruments.

Securing validity.—The instrument was derived from the California Definition which was accepted as a criterion. The procedure included the following steps:

1. About 25 statements describing teacher abilities were selected from the California Definition. These represented the abilities considered by the staff to be most critical.

2. Where necessary, other statements not explicit in the Definition but considered important locally were added to the list.

3. Each of the statements was then developed into a five-item scale, with each item describing what would be observable in the practices of teachers ranging from expert to ineffective.

For example, in the California Definition the following statement occurs:

1.33 Provides opportunities for wide participation.[1]

This was developed into a scale with five items each describing what might be seen in classrooms ranging from good to ineffective, as follows:

8. OPPORTUNITY FOR WIDE PARTICIPATION
   a. Students are largely passive; teacher "lectures" the large part of the time.
   b. Students are encouraged to participate in discussion and related activities.
   c. Students respond when called upon.
   d. Students respond well in teacher-led discussion.
   e. Students have maximum opportunity for discussion and participation in activities.

[1] See Appendix.

The items were then shuffled for technical reasons to be explained below.

4. The scales were compiled into an instrument to direct both observation and interview. Data on many of the scales can be collected by observation in the classroom. On the other hand, to find out about the teacher's contribution to building the local school program or effectiveness in the community, an interview with the teacher and also with the principal is usually necessary. For this reason the scale was in two parts, Part I calling for observable data, Part II calling for interview data.

Avoiding pitfalls.—As a measuring instrument the rating scale is peculiarly subject to a variety of hazards. This may be due in part to the dual purposes that a rating scale must serve. First, it must be designed to standardize the collection of data: What data are needed and how can they be collected? Second, it is usually designed to standardize the appraisal of data: What is the quality assigned to each of the various items of data collected?

By keeping these dual purposes distinct, and giving careful attention to each, most of the difficulty commonly encountered in scale construction can be avoided. The most common hazards in construction of rating scales and the steps to avoid them are as follows:

1. **The halo effect.**—Good or bad impressions in one area are likely to affect ratings in all areas. To avoid the halo effect it is necessary that each item be clear, specific, free from ambiguity, and have the same meaning for all qualified observers. Each item should call for concrete evidence which is clearly indicated.

In order to adhere rigorously to this requirement all reference to personality traits was excluded from the scale. This is in accord with research findings relative to construction of a useful scale, and also with the point of view taken in the California Definition. There it is pointed out that while the personal qualities of the teacher are of the utmost importance, this is rather for evaluating teacher potential than present performance. Present performance can and should be evaluated directly. If performance is effective, then personality is presumably acceptable. If performance is ineffective, then personal traits may be explored as part of the diagnosis, but this was not the function of this instrument.

2. **The fallacy of extreme cases.**—What does it mean if a teacher receives a zero rating on any item of the scale? Is it possible for a teacher to be competent in every other area, for example, if discipline is totally lacking?

On a well designed scale total inadequacy in any one area would be reflected in many other areas. As a precaution, however, an **anchor item** was included. This is a separate scale on which the observer, after he had made notes relative to all other scales, recorded his general appraisal of the teacher. Experimentation has revealed the value of this technique.

Actually, this is a recognition of the true function of the scale, which

is to make the observer efficient by standardizing his observations. In other words the observer, not the scale, is the measuring instrument. This may explain why careful training of the observer is necessary to prepare him to perform efficiently. Special training is a common requirement for effective administration of the individual intelligence test, the Rorschach Test, and many other technical instruments designed for careful and critical measurement. A rating scale for teachers measures a function as complex and technical as is measured by any of these instruments, hence the need for special preparation before undertaking the observations.

3. **The personal factor.**—Even a carefully constructed instrument, with items operationally defined and standards generally agreed upon, cannot counteract the tendency for some observers to rate consistently higher or lower than others. This further emphasizes the need for careful training of observers. Practice in joint use of the scale in observations, with discussion of the meaning of items, is necessary to arrive at a common interpretation of what has been observed and how it is to be appraised. This needs to be supplemented by occasional joint observations from time to time, to be sure that differences in meaning and judgment are not developing.

4. **Discriminative ability.**—Unless the instrument is very carefully designed there will be a marked tendency for observers to use only the upper half of the scales. Several steps are useful to counter this tendency. Each scale should be specifically directed to one and only one variable. Each item on the scale should describe behavior likely to be observed, or clearly comparable to what will be observed.

Equally important is the necessity to separate judgment from observation. During the observation the attention of the observer is directed to each objective included in the scale. He takes factual notes from which he later identifies the item on the instrument most nearly descriptive of what he saw. In order that the judgmental aspect be kept to a minimum, the items in each scale were shuffled and listed in random order.

Quality of the Instrument in Practice

The instrument thus constructed was used for appraising the experimental group and a control group in the Hawaii schools. About 70 teachers prepared in the experimental program and 70 teachers graduated from the regular program were each observed independently by two observers at different times. An analysis of the results showed that the committee had been successful in producing an instrument of acceptable quality. As a measure of consistency the correlation between the ratings of the two observers was .87. The mean was about one point higher than was desirable—about 4.1 on a 5-point scale. In spite of this, the discriminating quality of the scale was

sufficient to show a significant difference between the regular and the experimental group.

An interesting correlation of .84 was found between the total ratings and ratings on the anchor item. If any important factors of competence had been unduly emphasized, or entirely omitted on the scale, this bias should be reflected in a low correlation between the anchor item and the total rating. This relatively high correlation also confirms other experimental findings that once the observer has taken his notes, the anchor rating is all that is needed in any informal use of the scale.

Since this initial experience the instrument has been subjected to continued study and revision and has been used in several experimental projects in teachers colleges and in teacher appraisal programs in school systems. The desirable characteristics found earlier have been verified in later analyses.[1] With the auxiliary forms that have been developed, the instrument has become an efficient and convenient means for appraising teachers.

While the ultimate desideratum is for each institution or larger school system to adapt the instrument to its own philosophy, experience indicates the desirability for extended use of the original instrument before undertaking any revision.

Conclusions

The effectiveness of the instrument produced through the procedures described above may be attributed to several critical factors suggested by experimentation and experience in this field:

1. The instrument was systematically derived from an acceptable criterion. The California Definition proved effective for this purpose.

2. The procedure was sufficiently flexible to allow adaptation for local goals and philosophy.

3. The procedures for constructing scales incorporated precautions against hazards common to scale development.

4. Care was exercised to train observers in the use of the scales. The training program is essential to develop common meanings for items in the scales and to reconcile differences in philosophy.

The availability of an effective instrument for teacher appraisal that can be adapted for local use suggests many important developments. Since the instruments developed locally will be derived from the California Definition as a frame of reference, their areas of common ground will be greater than their differences. After some experience it should be possible to develop a basic instrument directed to the common objectives. With IBM analysis of scales and items, the qualities of the basic instrument can be

[1] Staff members from San Jose State College, in particular, have been active in analysis, revision, and experimentation with the instrument in Northern California, Nevada, and sections of the Midwest.

carefully refined. This can be centrally published with local supplements to recognize local philosophies.

Availability of a universally acceptable instrument to evaluate a major segment of teacher competence of common concern opens up a wide range of intriguing possibilities for research in preparing institutions. They can determine their effectiveness in producing competent teachers and identify important areas of strength and weakness. It should be possible to identify any unusually effective program features worth trying out in other institutions. The untested assumptions underlying admission requirements, programs of preparation, and utilization of teachers can be re-examined and validated. We would be in a position to validate accreditation standards and certification requirements.

These are important repsonsibilities which demand firsthand attention by the organized profession. Guaranteeing competence in its practitioners is a major obligation of a profession.

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APPENDIX

Six Teacher Roles

Roles of the Teacher in Promoting Pupil Growth

Role 1: Director of Learning

- 1.1 Adapts principles of child growth and development to planning of learning activities.
  - 1.11 Recognizes and deals with each pupil according to his needs.
  - 1.12 Helps individuals acquire the skills of effective group membership.
  - 1.13 Works closely with specialists, parents, and community agencies in the solution of physical and mental health problems.
  - 1.14 Makes and uses pupil records in ascertaining needs, planning work and guiding the learning process.
- 1.2 Plans teacher-learning situations in accord with acceptable principles of learning.
  - 1.21 Provides effective and continuing motivation.
    - 1.211 Develops cooperatively with pupils objectives for large units of study, daily class work, and special activities.
    - 1.212 Arranges for differentiated assignments to meet needs and abilities of individual pupils.
    - 1.213 Uses a variety of instruments and techniques for keeping pupil informed of his progress.
  - 1.22 Utilizes a variety of classroom activities.
  - 1.23 Selects and uses a wide variety of instructional materials.
  - 1.24 Provides abundant and varied opportunities for individual and group expression in appropriate creative fields.
  - 1.25 Helps pupil make application of his experiences to many situations.
- 1.3 Demonstrates effective instructional procedures.
  - 1.31 Provides a physical environment which facilitates learning.
  - 1.32 Makes assignments skillfully.
  - 1.33 Provides opportunities for wide participation.
- 1.4 Utilizes adequate evaluation procedures.
  - 1.41 Carries on evaluation as an integral part of instruction.
  - 1.42 Enlists cooperation of pupils and parents in developing programs of evaluation.
  - 1.43 Uses a variety of devices and procedures.
  - 1.44 Organizes and summarizes data for meaningful interpretation.

1.45 Reports to parents in terms of growth in knowledge, skills, attitudes, and social behavior.
1.46 Uses evaluative evidence to improve teaching-learning experiences.
1.47 Leads the learner to assume an important role in the evaluation of his own growth and development.

1.5 Maintains an effective balance of freedom and security in the classroom.
1.51 Shows an honest liking and sincere regard for boys and girls.
1.52 Emphasizes responsible group living with standards of conduct cooperatively determined.
1.53 Develops relations among pupils that are cooperative and natural.
1.54 Provides opportunities for pupils to develop qualities of leadership and of self-direction.
1.55 Plans management of classroom routine as a worthwhile learning experience for pupils.

Role 2: Counselor and Guidance Worker

2.1 Utilizes effective procedures for collecting information about each pupil.
2.11 makes effective use of informal procedures: anecdotal records, interviews, questionnaires, check lists.
2.12 Utilizes standard tests.
2.121 Is familiar with the more useful ones in his own field.
2.122 Selects those most appropriate for his purpose.
2.13 Is skillful in constructing and using informal tests and sociometric devices.
2.131 Appraises the characteristics of the test.
2.132 Interprets test results.
2.14 Provides pupils and parents with adequate reports.
2.141 Bases grades and reports on cumulative records.

2.2 Uses diagnostic and remedial procedures effectively.
2.21 Identifies learning difficulties.
2.22 Knows common diagnostic and achievement tests in own and related fields.
2.23 Administers and interprets diagnostic and achievement tests.
2.24 Selects appropriate remedial materials for instruction in relation to pupil's level of achievement.
2.25 Reveals ability to work correctively with the pupil at the level of his abilities, achievements, and interests at the given time.
2.26 Prepares and uses accurate and adequate records.
2.261 Makes case studies.
2.262 Keeps cumulative records.

2.3 Helps the pupil to understand himself.
  2.31 Establishes effective relationships with individual pupils.
    2.311 Utilizes suitable counseling techniques.
    2.312 Maintains effective relationship with the home.
  2.32 Assists the pupil in self-evaluation.
    2.321 Helps him to understand his own abilities and limitations.
    2.322 Guides him in the analysis of his personal problems.
    2.323 Assists him in defining realistic goals.
    2.324 Directs him to sources of information on vocational opportunities and careers.

2.4 Works effectively with the specialized counseling services.
  2.41 Recognizes serious problem cases.
  2.42 Refers serious cases to the specialist, with adequate background information.

Liaison Roles of the Teacher

Role 3: Mediator of the Culture

3.1 Draws on a scholarly background to enrich cultural growth of pupils.

3.2 Directs individuals and groups to appropriate significant life application of classroom learning.
  3.21 Utilizes his field of subject matter and/or general education in the solution of social, economic, scientific, and ethical problems.
  3.22 Reveals the wide significance of his own subject matter field.
  3.23 Develops an understanding of the inter-relationships among the great disciplines.

3.3 Designs classroom activities to develop pupil ability and motivation for:
  3.31 Finding democratic solutions to current social problems.
  3.32 Recognizing and identifying key problems.
  3.33 Understanding their inter-relationships and defining the issues.

3.4 Directs pupils in learning to use those materials from which they will continue to learn after leaving school.
  3.41 Teaches pupils to locate information on current problems.
  3.42 Utilizes effective activities to develop pupil skill in using such materials in analyzing current problems.

3.5 Develops pupil-attitudes and skills necessary for effective participation in a changing democratic society.
  3.51 Uses democratic techniques and skills in teaching.
  3.52 Provides for the use of democratic attitudes and skills by the

pupils in the classrooms, through:
3.521 Teacher-pupil planning of problem units.
3.522 Development of effective discussion practices.
3.523 Guidance in effective committee and other group participation.

3.6 Helps his students acquire the values realized as ideals of democracy, such as:
3.61 Mutual respect.
3.62 Willingness and ability to cooperate in the solution of problems.
3.63 Willingness and ability to use intelligence in problem-solving.
3.64 Goals and standards for effective living in our culture.

Role 4: Link with the Community

4.1 Utilizes available education resources of community in classroom procedures.
4.11 Invites parents and other adults to share hobbies, talents, and experiences with students.
4.12 Utilizes field trips to draw on community resources.
4.13 Interprets community to pupils through his own field and incidental activities.
4.14 Reveals to the public the significance of the school program through pupil activities in classroom, school, and community projects.
4.15 Initiates students into community responsibilities appropriate to their age level.

4.2 Secures cooperation of parents in school activities.
4.21 Knows when and how to obtain assistance for school or class affairs.
4.22 Conforms with policies of Parent-Teacher Associations and other cooperating groups relating to cooperation with the school.
4.23 Encourages parents to visit regular classes and special school events.
4.24 Conducts individual and group parent conferences with increasing skill.

4.3 Assists lay groups in understanding modern education.
4.31 Participates effectively with various socio-economic groups.
4.32 Keeps parents and public informed of school activities through bulletins, class letters, and newspaper articles.
4.33 Initiates opportunities to discuss educational problems and accomplishments with friends, neighbors, and community acquaintances.
4.34 Accepts invitations to speak upon educational subjects.

4.35 Communicates effectively with the public as well as with members of the profession.

4.4 Participates in definition and solution of community problems relating to education.
- 4.41 Contributes to service in the community.
- 4.42 Participates as a member of the profession in school betterment programs, bond issues and legislative matters.
- 4.43 Draws upon reliable sources for information and assistance.

Program-Building Roles

Role 5: Member of the Staff

5.1 Contributes to the definition of the over-all aims of the school.
- 5.11 Works effectively with the public to define school aims.
- 5.12 Interprets the relationship of school program and activities to the desired aims.
- 5.13 Articulates his classroom objectives to those of the school.

5.2 Contributes to the development of a school program to achieve its objectives.
- 5.21 Participates effectively in all-school curriculum developments.
  - 5.211 Utilizes effective procedures in curriculum-building.
  - 5.212 Demonstrates familiarity with current curricular projects and patterns
- 5.22 Articulates his classroom program to the school curriculum.

5.3 Contributes to the effectiveness of over-all school activities.
- 5.31 Participates in planning and guidance of student activities.
- 5.32 Assumes appropriate administrative responsibility for operation of the school as a whole.

5.4 Cooperates effectively in the evaluation of the school program.
- 5.41 Can define school aims in terms suitable for evaluation.
- 5.42 Participates in collection of relevant evidence.
- 5.43 Interprets the evidence to indicate needed revisions in program and aims.

Role 6: A Member of the Profession

6.1 Demonstrates an appreciation of the social importance of the profession.
- 6.11 Renders appropriate service to society beyond that for which he has contracted.
- 6.12 Contributes to the honor and prestige of the profession by his personal conduct.
- 6.13 Actively seeks to upgrade professional standards through selective recruitment and retention programs.

6.14 Interprets to others the goals and practices of the profession.

6.2 Contributes to the development of professional standards.
- 6.21 Takes part in the development of a functional code of ethics.
- 6.22 Adheres to the accepted code of ethics.
- 6.23 Helps to enforce the code of ethics in upgrading standards of professional behavior.
- 6.24 Supports an adequate system of certification and accreditation.
- 6.25 Helps improve pre-service and inservice programs of preparation.

6.3 Contributes to the porfession through its organizations.
- 6.31 Becomes a member of the organization.
- 6.32 Takes active part in the formulation of the organization policies.
- 6.33 Supports the policy once formed until it is changed by the democratic process.
- 6.34 Seeks and supports legislative programs to improve the program of education as well as the economic and social status of the profession.

6.4 Takes a personal responsibility for his own professional growth.
- 6.41 Develops and tests more effective classroom procedures.
- 6.42 Keeps informed on current trends, tendencies, and practices in his field by use of professional literature.
- 6.43 Participates in conferences, workshops, etc., dealing wth professional problems.
- 6.44 Enlarges his horizons through academic and non-academic experiences.

6.5 Acts on a systematic philosophy, critically adopted and consistently applied.
- 6.51 Expresses a systematic philosophy of education held with deep personal conviction.
- 6.52 Identifies and clarifies the philosophical assumptions underlying various and conflicting policies for his work in the six roles of professional practice.
- 6.53 Utilizes explicitly his philosophical views in making consistent choices of educational policies and practices.

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